

Control review of this question does not list such individuals.<sup>2</sup> Has there been a seroconversion related to the autopsy? There is no evidence that this has occurred.

Surely there have been innumerable scratches, skin punctures, mucous membrane exposures, and accidental cuts sustained by pathologists and their assistants in the approximately seven years that AIDS has existed in our major cities. Many pathologists were probably rather cavalier in their practices before the epidemiology of this disorder was understood.

Is the AIDS virus present at the time of death? A study devoted to this question has not yet been reported. A number of autopsies have, however, been sampled to try and detect the presence of the virus. The virus is recoverable in many cases, but in very low concentrations (D. Ho, MD, oral communication, 1987).

It was gratifying to read, at the end of the essay, that Dr. Schneiderman had performed seven additional autopsies on AIDS patients with, I am sure, much less fanfare and anxiety.

There are, regrettably, a number of pathologists who would not perform autopsies on AIDS patients if they had the choice. They are surely deluding themselves, since there will be, in the coming years, many individuals who come to autopsy without an established clinical diagnosis, or even a clinical suspicion, of AIDS, but who harbor the virus. The answer, of course, is for a greater number of autopsies to be performed, with appropriate precautions, and for the knowledge gained from these cases to be utilized in the better care of patients.

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## Rabies

**HOW DO YOU GET RABIES?** The primary reservoir in the United States is the sylvatic reservoir—about 80%. Skunks, foxes, bats, and raccoons account for about 95% of the cases of exposure to human rabies. Dog and cat contributions are very small.

In Minnesota, skunks are invariably number one, but cattle sometimes take over the number one spot. What happens is a rabid skunk gets loose in a pasture of cows and goes around nipping all the cows. Most of the large animals, cows and horses, are not immunized because it's not feasible economically to do so. Also, these animals don't respond well to immunization for the rabies virus.

To get rabies, you've got to have a break in the skin layer. Also, though, mucous membrane contact can cause rabies, so you've got that farm kid who's feeding his rabid horse and the horse is spewing saliva, or the kid with the multiple small scratches and cuts and abrasions on his hands and the pet horse turns out to have rabies. Those are also risk exposures. There's less chance, but you still have to treat that as a rabies exposure.

Maybe you're not going to see rabies, but you may be involved in the decision to treat. Some factors you should bear in mind: There's only a 40% chance if you get bitten by a rabid animal of actually developing rabies. It's not 100% sure that if you get bitten by a rabid bat, you're going to develop rabies.

This came from an Iranian wolf study in the middle 1970s. What happened was that Peace Corps volunteers were serving as medical workers in a remote Iranian village when the monsoon season hit. The rains wiped out all their communication, knocked down the bridges, and a pack of seven rabid wolves got loose in this large village, and went through and just bit everybody up. They ended up with about 74 people who had significant bites. They eliminated all the minor scratches and minor wounds and counted just those people that had big tearing injuries from wolf bites. Of those people, only 40% went on to develop rabies and die. So you probably only have a 40% chance. On the other hand, even though you've got a 40% chance, if you get rabies, you're dead. That's what I tell people—rabies is a fatal disease. If you get it, basically, you're dead.

—ROBERT D. DAHMS, MD

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